

[illegible]

<120> DUAL INTEGRIN ANTIBODIES, COMPOSITIONS, METHODS AND USES

<160> 17

 $\langle 210 \rangle$ 1

<212> PRT

<400> 1

<210> 2

 $\langle 211 \rangle$ 1'

<212> PRT

<213> Homo sapiens

<400> 2

Val Ile Ser Phe Asp Gly Ser Asn Lys Tyr Tyr Val Asp Ser Val Lys Gly
1 5 10 15

 $\langle 210 \rangle$ 3 $\langle 211 \rangle$ 10

<212> PRT

<213> Homo sapiens

<400> 3

Glu Ala Arg Gly Ser Tyr Ala Phe Asp Ile
1 5 10

<210> 4

<211> 10

<212> PRT

<213> Homo sapiens

<400> 4

Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
1 5 10

 $\langle 210 \rangle$ 5

$\langle 211 \rangle$ 6

<212> PRT

<21.3> Homo sapiens

<400> 5

Asp Ala Ser Asn Arg Ala Thr
1 5

 $\langle 210 \rangle$ 6 $\langle 211 \rangle$ 7

<212> PRT

<213> Homo sapiens

≤400> 6

Gln Gln Arg Ser Asn Trp Pro Pro
1 5

<210> 7
<211> 119
<212> PRT
<213> Homo sapiens
<400> 7

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Arg Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Phe Asp Gly Ser Asn Lys Tyr Tyr Val Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Leu Tyr
65 70 75 80

Leu Gln Val Asn Ile Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Arg Gly Ser Tyr Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 8
<211> 108
<212> PRT
<213> Homo sapiens
<400> 8

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Pro
85 90 95

Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys

<210> 9
 <211> 1048
 <212> PRT
 <213> Homo sapiens
 <400> 9

Met Ala Phe Pro Pro Arg Arg Arg Leu Arg Leu Gly Pro Arg Gly Leu
 1 5 10 15

Pro Leu Leu Leu Ser Gly Leu Leu Leu Pro Leu Cys Arg Ala Phe Asn
 20 25 30

Leu Asp Val Asp Ser Pro Ala Glu Tyr Ser Gly Pro Glu Gly Ser Tyr
 35 40 45

Phe Gly Phe Ala Val Asp Phe Phe Val Pro Ser Ala Ser Ser Arg Met
 50 55 60

Phe Leu Leu Val Gly Ala Pro Lys Ala Asn Thr Thr Gln Pro Gly Ile
 65 70 75 80

Val Glu Gly Gly Gln Val Leu Lys Cys Asp Trp Ser Ser Thr Arg Arg
 85 90 95

Cys Gln Pro Ile Glu Phe Asp Ala Thr Gly Asn Arg Asp Tyr Ala Lys
 100 105 110

Asp Asp Pro Leu Glu Phe Lys Ser His Gln Trp Phe Gly Ala Ser Val
 115 120 125

Arg Ser Lys Gln Asp Lys Ile Leu Ala Cys Ala Pro Leu Tyr His Trp
 130 135 140

Arg Thr Glu Met Lys Gln Glu Arg Glu Pro Val Gly Thr Cys Phe Leu
 145 150 155 160

Gln Asp Gly Thr Lys Thr Val Glu Tyr Ala Pro Cys Arg Ser Gln Asp
 165 170 175

Ile Asp Ala Asp Gly Gln Gly Phe Cys Gln Gly Gly Phe Ser Ile Asp
 180 185 190

Phe Thr Lys Ala Asp Arg Val Leu Leu Gly Gly Pro Gly Ser Phe Tyr
 195 200 205

Trp Gln Gly Gln Leu Ile Ser Asp Gln Val Ala Glu Ile Val Ser Lys
 210 215 220

Tyr Asp Pro Asn Val Tyr Ser Ile Lys Tyr Asn Asn Gln Leu Ala Thr
 225 230 235 240

Arg Thr Ala Gln Ala Ile Phe Asp Asp Ser Tyr Leu Gly Tyr Ser Val
 245 250 255

Ala Val Gly Asp Phe Asn Gly Asp Gly Ile Asp Asp Phe Val Ser Gly
 260 265 270

Val	Pro	Arg	Ala	Ala	Arg	Thr	Leu	Gly	Met	Val	Tyr	Ile	Tyr	Asp	Gly
	275						280					285			
Lys	Asn	Met	Ser	Ser	Leu	Tyr	Asn	Phe	Thr	Gly	Glu	Gln	Met	Ala	Ala
	290					295					300				
Tyr	Phe	Gly	Phe	Ser	Val	Ala	Ala	Thr	Asp	Ile	Asn	Gly	Asp	Asp	Tyr
305					310					315					320
Ala	Asp	Val	Phe	Ile	Gly	Ala	Pro	Leu	Phe	Met	Asp	Arg	Gly	Ser	Asp
				325					330					335	
Gly	Lys	Leu	Gln	Glu	Val	Gly	Gln	Val	Ser	Val	Ser	Leu	Gln	Arg	Ala
			340					345					350		
Ser	Gly	Asp	Phe	Gln	Thr	Thr	Lys	Leu	Asn	Gly	Phe	Glu	Val	Phe	Ala
		355					360					365			
Arg	Phe	Gly	Ser	Ala	Ile	Ala	Pro	Leu	Gly	Asp	Leu	Asp	Gln	Asp	Gly
	370					375					380				
Phe	Asn	Asp	Ile	Ala	Ile	Ala	Ala	Pro	Tyr	Gly	Gly	Glu	Asp	Lys	Lys
385				390						395					400
Gly	Ile	Val	Tyr	Ile	Phe	Asn	Gly	Arg	Ser	Thr	Gly	Leu	Asn	Ala	Val
				405				410						415	
Pro	Ser	Gln	Ile	Leu	Glu	Gly	Gln	Trp	Ala	Ala	Arg	Ser	Met	Pro	Pro
		420						425					430		
Ser	Phe	Gly	Tyr	Ser	Met	Lys	Gly	Ala	Thr	Asp	Ile	Asp	Lys	Asn	Gly
		435				440						445			
Tyr	Pro	Asp	Leu	Ile	Val	Gly	Ala	Phe	Gly	Val	Asp	Arg	Ala	Ile	Leu
	450					455					460				
Tyr	Arg	Ala	Arg	Pro	Val	Ile	Thr	Val	Asn	Ala	Gly	Leu	Glu	Val	Tyr
465				470						475					480
Pro	Ser	Ile	Leu	Asn	Gln	Asp	Asn	Lys	Thr	Cys	Ser	Leu	Pro	Gly	Thr
			485					490						495	
Ala	Leu	Lys	Val	Ser	Cys	Phe	Asn	Val	Arg	Phe	Cys	Leu	Lys	Ala	Asp
		500						505					510		
Gly	Lys	Gly	Val	Leu	Pro	Arg	Lys	Leu	Asn	Phe	Gln	Val	Glu	Leu	Leu
		515					520					525			
Leu	Asp	Lys	Leu	Lys	Gln	Lys	Gly	Ala	Ile	Arg	Arg	Ala	Leu	Phe	Leu
	530					535					540				
Tyr	Ser	Arg	Ser	Pro	Ser	His	Ser	Lys	Asn	Met	Thr	Ile	Ser	Arg	Gly
545					550					555					560
Gly	Leu	Met	Gln	Cys	Glu	Glu	Leu	Ile	Ala	Tyr	Leu	Arg	Asp	Glu	Ser
			565					570						575	
Glu	Phe	Arg	Asp	Lys	Leu	Thr	Pro	Ile	Thr	Ile	Phe	Met	Glu	Tyr	Arg

590

Gly Glu Arg Asp His Leu Ile Thr Lys Arg Asp Leu Ala Leu Ser Glu
885 890 895

Gly Asp Ile His Thr Leu Gly Cys Gly Val Ala Gln Cys Leu Lys Ile
800 905 910

Val Cys Gln Val Gly Arg Leu Asp Arg Gly Lys Ser Ala Ile Leu Tyr
915 920 925

Val Lys Ser Leu Leu Trp Thr Glu Thr Phe Met Asn Lys Glu Asn Gln
930 935 940

Asn His Ser Tyr Ser Leu Lys Ser Ser Ala Ser Phe Asn Val Ile Glu
945 950 955 960

Phe Pro Tyr Lys Asn Leu Pro Ile Glu Asp Ile Thr Asn Ser Thr Leu
965 970 975

Val Thr Thr Asn Val Thr Trp Gly Ile Gln Pro Ala Pro Met Pro Val
980 985 990

Pro Val Trp Val Ile Ile Leu Ala Val Leu Ala Gly Leu Leu Leu Leu
995 1000 1005

Ala Val Leu Val Phe Val Met Tyr Arg Met Gly Phe Phe Lys Arg Val
1010 1015 1020

Arg Pro Pro Gln Glu Glu Gln Glu Arg Glu Gln Leu Gln Pro His Glu
1025 1030 1035 1040

Asn Gly Glu Gly Asn Ser Glu Thr
1045

<210> 10

<211> 15

<212> DNA

<213> Homo sapiens

<400> 10

aqatatacta tgcac

15

<210> 11

<211> 51

<212> DNA

<213> Homo sapiens

<400> 11

gttatatcat ttgatggaag caataaatac tacgtagact ccgtgaaggg c

51

<210> 12

<211> 30

<212> DNA

<213> Homo sapiens

<400> 12

gagggccgag gatcgtatgc ttttgatatc

30

<210> 13

<211> 33

<212> DNA

<213> Homo sapiens

<400> 13

ctctcctgca gggccagtca gagtgttagc agctacttag cc

33

<210> 14

<211> 18
 <212> DNA
 <213> Homo sapiens
 <400> 14
 gatgcatcca acagggcc

18

<210> 15
 <211> 21
 <212> DNA
 <213> Homo sapiens
 <400> 15
 cagcagcgta gcaactggcc t

21

<210> 16
 <211> 788
 <212> PRT
 <213> Homo sapiens
 <400> 16

Met Arg Ala Arg Pro Arg Pro Arg Pro Leu Trp Ala Thr Val Leu Ala
 1 5 10 15
 Leu Gly Ala Leu Ala Gly Val Gly Val Gly Gly Pro Asn Ile Cys Thr
 20 25 30
 Thr Arg Gly Val Ser Ser Cys Gln Gln Cys Leu Ala Val Ser Pro Met
 35 40 45
 Cys Ala Trp Cys Ser Asp Glu Ala Leu Pro Leu Gly Ser Pro Arg Cys
 50 55 60
 Asp Leu Lys Glu Asn Leu Leu Lys Asp Asn Cys Ala Pro Glu Ser Ile
 65 70 75 80
 Glu Phe Pro Val Ser Glu Ala Arg Val Leu Glu Asp Arg Pro Leu Ser
 85 90 95
 Asp Lys Gly Ser Gly Asp Ser Ser Gln Val Thr Gln Val Ser Pro Gln
 100 105 110
 Arg Ile Ala Leu Arg Leu Arg Pro Asp Asp Ser Lys Asn Phe Ser Ile
 115 120 125
 Gln Val Arg Gln Val Glu Asp Tyr Pro Val Asp Ile Tyr Tyr Leu Met
 130 135 140
 Asp Leu Ser Tyr Ser Met Lys Asp Asp Leu Trp Ser Ile Gln Asn Leu
 145 150 155 160
 Gly Thr Lys Leu Ala Thr Gln Met Arg Lys Leu Thr Ser Asn Leu Arg
 165 170 175
 Ile Gly Phe Gly Ala Phe Val Asp Lys Pro Val Ser Pro Tyr Met Tyr
 180 185 190
 Ile Ser Pro Pro Glu Ala Leu Glu Asn Pro Cys Tyr Asp Met Lys Thr
 195 200 205

Cys Gly Gln Cys Val Cys His Ser Ser Asp Phe Gly Lys Ile Thr Gly
530 535 540

Lys Tyr Cys Glu Cys Asp Asp Phe Ser Cys Val Arg Tyr Lys Gly Glu
545 550 555 560

Met Cys Ser Gly His Gly Gln Cys Ser Cys Gly Asp Cys Leu Cys Asp
565 570 575

Ser Asp Trp Thr Gly Tyr Tyr Cys Asn Cys Thr Thr Arg Thr Asp Thr
580 585 590

Cys Met Ser Ser Asn Gly Leu Leu Cys Ser Gly Arg Gly Lys Cys Glu
595 600 605

Cys Gly Ser Cys Val Cys Ile Gln Pro Gly Ser Tyr Gly Asp Thr Cys
610 615 620

Glu Lys Cys Pro Thr Cys Pro Asp Ala Cys Thr Phe Lys Lys Glu Cys
625 630 635 640

Val Glu Cys Lys Lys Phe Asp Arg Glu Pro Tyr Met Thr Glu Asn Thr
645 650 655

Cys Asn Arg Tyr Cys Arg Asp Glu Ile Glu Ser Val Lys Glu Leu Lys
660 665 670

Asp Thr Gly Lys Asp Ala Val Asn Cys Thr Tyr Lys Asn Glu Asp Asp
675 680 685

Cys Val Val Arg Phe Gln Tyr Tyr Glu Asp Ser Ser Gly Lys Ser Ile
690 695 700

Leu Tyr Val Val Glu Glu Pro Glu Cys Pro Lys Gly Pro Asp Ile Leu
705 710 715 720

Val Val Leu Leu Ser Val Met Gly Ala Ile Leu Leu Ile Gly Leu Ala
725 730 735

Ala Leu Leu Ile Trp Lys Leu Leu Ile Thr Ile His Asp Arg Lys Glu
740 745 750

Phe Ala Lys Phe Glu Glu Glu Arg Ala Arg Ala Lys Trp Asp Thr Ala
755 760 765

Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr Asn Ile Thr
770 775 780

Tyr Arg Gly Thr
785

<210> 17
<211> 799
<212> PRT
<213> Homo sapiens
<400> 17

Met Pro Arg Ala Pro Ala Pro Leu Tyr Ala Cys Leu Leu Gly Leu Cys

Leu Leu Gly Glu Lys Leu Ala Glu Asn Asn Ile Asn Leu Ile Phe Ala
 325 330 335
 Val Thr Lys Asn His Tyr Met Leu Tyr Lys Asn Phe Thr Ala Leu Ile
 340 345 350
 Pro Gly Thr Thr Val Glu Ile Leu Asp Gly Asp Ser Lys Asn Ile Ile
 355 360 365
 Gln Leu Ile Ile Asn Ala Tyr Asn Ser Ile Arg Ser Lys Val Glu Leu
 370 375 380
 Ser Val Trp Asp Gln Pro Glu Asp Leu Asn Leu Phe Phe Thr Ala Thr
 385 390 395 400
 Cys Gln Asp Gly Val Ser Tyr Pro Gly Gln Arg Lys Cys Glu Gly Leu
 405 410 415
 Lys Ile Gly Asp Thr Ala Ser Phe Glu Val Ser Leu Glu Ala Arg Ser
 420 425 430
 Cys Pro Ser Arg His Thr Glu His Val Phe Ala Leu Arg Pro Val Gly
 435 440 445
 Phe Arg Asp Ser Leu Glu Val Gly Val Thr Tyr Asn Cys Thr Cys Gly
 450 455 460
 Cys Ser Val Gly Leu Glu Pro Asn Ser Ala Arg Cys Asn Gly Ser Gly
 465 470 475 480
 Thr Tyr Val Cys Gly Leu Cys Glu Cys Ser Pro Gly Tyr Leu Gly Thr
 485 490 495
 Arg Cys Glu Cys Gln Asp Gly Glu Asn Gln Ser Val Tyr Gln Asn Leu
 500 505 510
 Cys Arg Glu Ala Glu Gly Lys Pro Leu Cys Ser Gly Arg Gly Asp Cys
 515 520 525
 Ser Cys Asn Gln Cys Ser Cys Phe Glu Ser Glu Phe Gly Lys Ile Tyr
 530 535 540
 Gly Pro Phe Cys Glu Cys Asp Asn Phe Ser Cys Ala Arg Asn Lys Gly
 545 550 555 560
 Val Leu Cys Ser Gly His Gly Glu Cys His Cys Gly Glu Cys Lys Cys
 565 570 575
 His Ala Gly Tyr Ile Gly Asp Asn Cys Asn Cys Ser Thr Asp Ile Ser
 580 585 590
 Thr Cys Arg Gly Arg Asp Gly Gln Ile Cys Ser Glu Arg Gly His Cys
 595 600 605
 Leu Cys Gly Gln Cys Gln Cys Thr Glu Pro Gly Ala Phe Gly Glu Met
 610 615 620
 Cys Glu Lys Cys Pro Thr Cys Pro Asp Ala Cys Ser Thr Lys Arg Asp
 625 630 635 640

